

Listing of the Claims:

A listing of the entire set of pending claims is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously presented) A method for direct communication between a first station and a second station in an Access Point controlled wireless network, wherein a communication channel is ruled by an identifier associated with the Access Point, comprising:

generating a second identifier by said first station, the second identifier different from the identifier associated with the Access Point;

sending, by said first station to the second station, an invitation message for direct communication carrying said second identifier;

sending, by said second station, a response message acknowledging the invitation message; and

setting up direct communication between said first station and said second station using said second identifier, wherein the first station and the second station are different from the Access Point.

2. (Previously presented) The method according to claim 1, wherein said invitation message and said response message are sent via the Access Point using the identifier associated with the Access Point.

3. (Previously presented) The method according to claim 1, wherein said invitation message and said response message are exchanged directly between said first station and said second station using the second identifier different from the identifier associated with the Access Point.

4. (Original) The method according to claim 1, wherein said response message

contains information that said second identifier is confirmed or that said second identifier is rejected and a third identifier is proposed, wherein said third identifier is different from the identifier associated with the Access Point.

5. (Previously presented) The method according to claim 12, wherein said response message contains information that said second channel is confirmed or that said second channel is rejected and the channel which is associated with the Access Point or a third channel is proposed.

6. (Original) The method according to claim 1, wherein said second identifier is a dedicated identifier for direct communication between stations.

7. (Previously presented) The method according to claim 1, wherein carrier sensing is applied to avoid collision on said communication channel ruled by an identifier associated with the Access Point.

8. (Previously presented) Use of the method according to claim 1 in the communication protocol of the IEEE 802.11 standard.

9. (Previously presented) An access point controlled wireless network, wherein a first communication channel is ruled by an identifier associated with the access point, said wireless network comprising:

at least a first station and a second station capable of establishing direct communication, wherein:

said first station generates a second identifier, the second identifier different from the identifier associated with the access point, and sends an invitation message for direct communication carrying said second identifier to the second station; said second station sends a response message acknowledging the invitation message; and said first station sets up direct communication with said second station using said second identifier, wherein the first station and the second station are different from the access

point.

10. (Previously presented) The wireless network of claim 9, wherein the first station chooses the first communication channel or a second communication channel, different from the first communication channel, for direct communication with the second station, and when the second communication channel is chosen, the first station sends an indication of the second communication channel to the second station.

11. (Previously presented) The wireless network of claim 10, wherein, when the second station receives an indication of the second communication channel, the response message contains information that the second communication channel is confirmed or that the second communication channel is rejected and the first communication channel which is associated with the access point or a third communication channel is proposed.

12. (Previously presented) The method according to claim 1, wherein the first station chooses the first communication channel or a second communication channel, different from the first communication channel, for direct communication with the second station, and when the second communication channel is chosen, the first station sends an indication of the second communication channel to the second station.